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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,716	09/21/2005	Josef Haupt	ZAHFRI P765US	1888
20210 7590 05/09/2007 DAVIS & BUJOLD, P.L.L.C. 112 PLEASANT STREET CONCORD, NH 03301			EXAMINER FERGUSON, MICHAEL P	
			ART UNIT 3679	PAPER NUMBER
			MAIL DATE 05/09/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/542,716

**Applicant(s)**

HAUPT, JOSEF

**Examiner**

Michael P. Ferguson

**Art Unit**

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 14-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>07/20/05,08/12/05</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities:

In the specification, paragraph [007], line 1, recites "This problem is solved with the features of claim 1. ". Such sentence should be deleted.

In the specification, paragraph [009], line 1, recites "Advantageous structures... from the sub-claims. ". Such sentence should be deleted.

Appropriate correction is required.

### ***Claim Objections***

2. Claims 14-16, 18, 21, 22, 24 and 25 are objected to because of the following informalities:

Claim 14 (line 2) recites "components (2,3) by way of a snap ring". It should recite --components (2,3), the arrangement comprising a snap ring--.

Claim 14 (line 3) recites "the snap ring (6) is movable". It should recite --wherein the snap ring (6) is movable--.

Claim 14 (line 4) recites "the supporting component (2), a component (3) to be supported has two". It should recite --a supporting component (2); and a component (3) to be supported by the supporting component having two--.

Claim 14 (line 7) recites "designed and with each... of the snap ring (6) one ramp (8,9) is coordinated. ". It should recite --designed and one ramp (8,9) being coordinated with each... of the snap ring (6). --.

Claim 15 (line 3) recites "the at least one of". It should recite --wherein at least one of--.

Claim 16 (lines 1-2) recites "the supported component has". It should recite --the supporting component has--.

Claim 16 (lines 2-3) recites "the at least one ramp". It should recite --wherein at least one ramp--.

Claim 18 (line 2) recites "as knubs". It should recite --as a knob--.

Claim 21 (line 2) recites "the metal sheet component". It should recite --the sheet metal component--.

Claim 22 (line 1) recites "the knubs (10) are". It should recite --the knob (10) is--.

Claim 24 (line 2) recites "the peripheral areas behind". It should recite --peripheral areas adjacent--.

Claim 24 (line 2) recites "of cross-section". It should recite --of cross-section of the snap ring--.

Claim 25 (line 2) recites "as outer (2) and... as inner (3)". It should recite --as an outer (2) disc carrier and... as an inner (3)--.

For the purpose of examining the application, it is assumed that appropriate correction has been made.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 23 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 23 recites "wherein the snap ring (6) is designed non-torsionally in the area of the impacting ends". It is unclear as to what structural features or characteristics constitute a "non-torsional" design. It appears that the applicant intended to claim the impacting ends having a resistance to twisting. However, in the specification, the snap ring is disclosed as twisted in order for the snap ring to be assembled within the arrangement; thus it is unclear as to how the snap ring can have a resistance to twisting. Accordingly, one is unable to determine the metes and bounds of such claim. Claim 24 depends from claim 23 and is likewise rejected.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 14, 16-23 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Hallerberg (US 4,018,318).

As to claim 14, Hallerberg discloses an arrangement for axial support of two jointly rotating components **5,2**, the arrangement comprising a snap ring **15** which has two impacting ends **18** separated by a peripheral gap, wherein the snap ring is movable in an area of a radial spring path and inserted in an annular groove of a supporting

component **5**; and a component **2** to be supported by the supporting component having two ramps **20,21** in an area of the radial spring path of the impacting ends of the snap ring, the two ramps and the component to be supported being integrally designed and one ramp being coordinated with each of the impacting ends of the snap ring (Figures 4 and 5).

As to claim 16, Hallerberg discloses an arrangement wherein the supporting component **5** has a cylindrical outer face in which the annular groove is integrated, wherein at least one ramp **20,21** is situated radially outside the impacting ends **18** (Figure 5).

As to claim 17, Hallerberg discloses an arrangement wherein one stop **17** is situated between the impacting ends **18** in an area of the peripheral gap (Figure 5).

As to claim 18, Hallerberg discloses an arrangement wherein the stop **17** is designed as a knob and situated upon the component **2** to be supported (Figures 4 and 5).

As to claim 19, Hallerberg discloses an arrangement wherein the component **2** to be supported is designed as a sheet metal component (component **2** has metal cross-hatching; Figure 4).

As to claim 20, Hallerberg discloses an arrangement wherein the supporting component **5** is designed as a sheet metal component (supporting component **5** has metal cross-hatching; Figure 4).

As to claim 21, Hallerberg discloses an arrangement wherein the two ramps **20,21** are formed from the sheet metal component **2** to be supported (component **2** has metal cross-hatching; Figure 4).

Applicant is reminded that **process limitations are given little patentable weight in product claims** since the patentability determination of product-by-process claims is based on the product itself, even though such claims are limited and defined by the process. See MPEP § 2113. "The patentability of a product does not depend on its method of production. " In re Thorpe, 777 F.2d 695,698,USPQ 964,966 (Fed.Cir.1985). Accordingly, the stamping process limitations of claim 21 are given little patentable weight.

As to claim 22, Hallerberg discloses an arrangement wherein the knob **17** is formed from the sheet metal component **2** to be supported (knub **17** has metal cross-hatching; Figure 4).

Applicant is reminded that **process limitations are given little patentable weight in product claims** since the patentability determination of product-by-process claims is based on the product itself, even though such claims are limited and defined by the process. See MPEP § 2113. "The patentability of a product does not depend on its method of production. " In re Thorpe, 777 F.2d 695,698,USPQ 964,966 (Fed.Cir.1985). Accordingly, the stamping process limitations of claim 22 are given little patentable weight.

As to claim 23, Hallerberg discloses an arrangement wherein the snap ring **15** is designed non-torsionally in the area of the impacting ends **18** around a respective axis

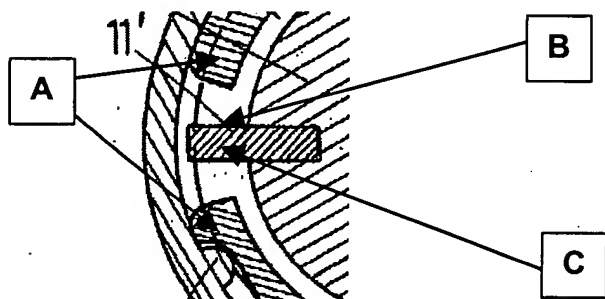
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extending in a peripheral direction (impacting ends **18** have a resistance to twisting due to abutment with ramps **20,21** and stop **17**; Figure 4).

As to claim 25, Hallerberg discloses an arrangement wherein the supporting component **5** is designed as an outer disc carrier and the component **2** to be supported as an inner disc carrier of a multi-disc clutch (column 3 lines 22-27).

7. Claims 14, 15, 17-20, 23 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Laurent et al. (US 3,827,814).

As to claim 14, Laurent et al. disclose an arrangement for axial support of two jointly rotating components **1,2**, the arrangement comprising a snap ring **8** which has two impacting ends **A** (Figure 2 reprinted below with annotations) separated by a peripheral gap, wherein the snap ring is movable in an area of a radial spring path and inserted in an annular groove of a supporting component **1**; and a component **2** to be supported by the supporting component having two ramps **B,C** (opposite sides of stop **11'** defining opposing ramps **B,C**) in an area of the radial spring path of the impacting ends of the snap ring, the two ramps and the component to be supported being integrally designed (ramps **B,C** and component **2** function as a single integral unit) and one ramp being coordinated with each of the impacting ends of the snap ring (Figures 1 and 2).





As to claim 15, Laurent et al. disclose an arrangement wherein the supporting component **1** has one of an approximately hollow cylindrical inner face or a hole in which the annular groove is integrated, wherein at least one of the two ramps **B,C** is situated radially within the impacting ends (Figure 2).

As to claim 17, Laurent et al. disclose an arrangement wherein one stop **11'** is situated between the impacting ends **A** in an area of the peripheral gap (Figure 2).

As to claim 18, Laurent et al. disclose an arrangement wherein the stop **11'** is designed as a knob and situated upon the component **2** to be supported (Figure 2).

As to claim 19, Laurent et al. disclose an arrangement wherein the component **2** to be supported is designed as a sheet metal component (component **2** has metal cross-hatching; Figure 2).

As to claim 20, Laurent et al. disclose an arrangement wherein the supporting component **1** is designed as a sheet metal component (supporting component **1** has metal cross-hatching; Figure 2).

As to claim 23, Laurent et al. disclose an arrangement wherein the snap ring **8** is designed non-torsionally in the area of the impacting ends **A** around a respective axis extending in a peripheral direction (impacting ends **A** have a resistance to twisting due to abutment with ramps **B,C** and stop **11'**; Figure 2).

As to claim 24, Laurent et al. disclose an arrangement wherein the snap ring **8** has in peripheral areas adjacent the impacting ends **A** recesses **10a,10b** for reduction of cross-section of the snap ring (Figure 2).

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. The following patents show the state of the art with respect to snap ring arrangements:

Stultz (US 2,896,287), Baur et al. (US 3,070,389) Kann (US 2,919,736) and Higby et al. (US 4,798,548) are cited for pertaining to arrangements comprising a snap ring having two impacting ends abutting a stop.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Ferguson whose telephone number is (571)272-7081. The examiner can normally be reached on M-F (8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571)272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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